ATTACHMENT 1

# PERFORMANCE WORK STATEMENT

National Flight Procedures Office
Instrument Flight Procedures
Development and Maintenance Services

(Revision dated 6/09/08)

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Instrument Flight Procedures
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## 1.0 GENERAL

1.1. Background: The Federal Aviation Administration (FAA), Aviation System Standards (AVN), National Flight Procedures Office (NFPO) is responsible for the global development and maintenance of Terminal and Enroute Instrument Flight Procedures (IFPs). The NFPO provides lifespan maintenance of IFPs in the National Airspace System (NAS). The production of these procedures has expanded to meet the increased NAS demand and advances in aeronautical technology. The FAA IFPs are produced in a unique application environment for both civilian and military users. IFPs are produced in accordance with specific FAA criteria for which user data is applied and the quality control is retained within the FAA.

1.2. Purpose: The FAA requires contract services to provide project management, supervision, development, maintenance, and quality assurance of IFP products designated by the FAA National Flight Procedures Office (NFPO). The contract services are required to amend and/or develop civil or military procedures in accordance with prescribed FAA IFP Development and Maintenance criteria. Amended or original procedures will include instrument approach and departure procedures, airways, satellite and ground based IFPs.

1.3. Place of Performance: Contractor services for this task shall be performed at the Mike Monroney Aeronautical Center, Oklahoma City, Oklahoma.

1.4. Period of Performance: Base Year (one year from date of award) with options for six additional years.

1.5. Holiday and Hours: Contract services shall be performed at the site Monday through Friday, federal Holidays excluded. In addition, performance shall not be required for any other /daytime designated by Federal Statue, Executive Order, or Presidential Proclamation. Facility access to government buildings is available between 6:00 AM and 6:00 PM. Federal Holidays are identified below:

| | | |
|---|---|---|
| (a) | January 1 | New Year's Day |
| (b) | Third Monday in January | Martin Luther King Day |
| (c) | Third Monday in February | President's Day |
| (d) | Last Monday in May | Memorial Day |
| (e) | July 4 | Independence Day |
| (f) | First Monday in September | Labor Day |
| (g) | Second Monday in October | Columbus Day |
| (h) | November 11 | Veteran's Day |
| (i) | Fourth Thursday in November | Thanksgiving Day |
| (j) | December 25 | Christmas Day |

Adverse weather conditions or national emergencies may require the Center or local FAA site to close.

1.6. Scope of Work: The contract services shall provide development, design or amendment of Instrument Flight Procedures (IFPs) when tasked, including the related project management, administration and travel. The requirements for IFP products may vary in levels of complexity as defined in Attachment 3. The three levels of complexity have a unit value: Basic is one (1) unit, Moderate is two (2) units and complex is three (3 units). The required deliveries under this contract will not exceed 1600 units per year and may contain combinations of differing levels of complexity. The performance requires quality and timely deliveries of IFPs to meet the FAAs production cycle. Task Orders will be placed weekly to the vendor and a production schedule will be established by the vendor with expected completion dates. Contractor expected completion dates will be used by the FAA to slot work in progress IFPs into the FAA's production cycle. Completed IFPs will be required to go through FAA AVN quality assurance review before acceptance. The contractor shall meet FAA objectives described below:

- Provide quality IFP development and maintenance services to develop and amend instrument flight procedures as requested from National Flight Procedures Office (NFPO). The requirements will be tasked by the Contracting Officer or designated Contracting Officer's Technical Representative.

- Provide effective project management, administration, supervision, reporting, and delivery of IFPs.

- Provide the delivery of Instrument flight procedures to NFPO as agreed upon per Task Order.

## 2.0. GOVERNMENT FURNISHED PROPERTY

2.1. The government will provide adequate and necessary office space at the Mike Monroney Aeronautical Center, Oklahoma City, OK, including office furniture, administrative supplies, automation tools, software, utilities, telephone and other related services/equipment.

2.2. The government will provide access to updated FAA orders, regulations and supplemental documents needed to perform assigned tasks via designated FAA websites and share drives.

2.3. The government shall provide FAA specific systems and related training for: FAA Procedure Tracking System (PTS), Expanded Service Volume Management System (ESVMS), Instrument Approach Procedures Automation (IAPA) and/or Instrument Procedures Development System (IPDS) and Instrument Flight Procedures (IFP) systems for forms documentation

## 3.0 IFP SYSTEM TRAINING:

3.1 Use of government data and systems is preferred for the design, development, and amendment of IFPs. An orientation for FAA equipment use will be conducted prior to initiating procedure development tasks. The government shall only provide FAA unique training that is necessary to utilize the FAA specific systems associated with performance requirements identified herein. The training will be coordinated and scheduled the Project Manager upon award for contract personnel who will be performing services for the procedure development/design Task Orders. The system orientation will be provided for:

- Procedure Tracking System (PTS)
- Expanded Service Volume Management System (ESVMS),
- Instrument Approach Procedures Automation (IAPA) and/or Instrument Procedures Development System (IPDS)
- Instrument Flight Procedures (IFP) systems for forms documentation.

3.2 As classes become available, the FAA will provide an opportunity for training courses for all contract personnel assigned to the task. The Project Manager and FAA will coordinate the scheduling of courses. These courses consist of an introduction to the following:

- Non-precision instrument approach procedures to include FAF and No-FAF construction.
- The use of IFP SIAP and IFP Fix documentation tools.
- The use of the ESVMS system.
- The use of the IAPA system.

3.3 As FAA classes become available, on-site academic training may be provided to contract personnel assigned to the task who are designated by the Project Manager for training in the following areas:

- Area Navigation (RNAV)
- Instrument Landing Systems (ILS)
- ARINC and Departure training.

All scheduled FAA training will be coordinated between the Contract Program Manager and the COTR..

## 4.0 CONTRACTOR FURNISHED PROPERTY

NONE

## 5.0 PERFORMANCE REQUIREMENTS

5.1 The Project Manager and Alternate Project Manager shall be responsible for ensuring effective management, supervision, administration, and IFP development, maintenance and quality control of services delivered. The contractor shall provide on-site supervision and monitor contractor personnel who are performing under this contract. The Project Manager, and designated alternate shall perform on site during regular business hours M-F excluding holidays. Government employees shall not supervise contract employees at any time. The Project Manager or alternate shall attend all regularly scheduled meetings with the CO or designated NFPO Contracting Officer Technical Representative. The Project Manager shall ensure the minutes of the meetings are documented, including NFPO request for schedule changes due to priorities, status, quality issues, training, action items and or resolved items. The notes shall be complied for monthly reporting requirements as identified by the NFPO CDRLS attached to the Screening Information Request. The Contract Project Manager, or representative, will meet periodically with the COTR and National Flight Procedures Office Manager (AVN-100) at a time and frequency as mutually determined. The Project Manager shall ensure regularly scheduled interchange meetings are maintained, and reports are coordinated to address:

- All issues related to IFP development and/or maintenance
- Completion or Status
- Quality control
- Acceptance
- Training and/or Travel requirements
- Funding
- Action required or resolution completed

The Project Manager and Alternate Project Manager must provide professional expertise, and administration to support the contract. The Project Manager shall possess a broad range of skills that represent senior level expertise for IFP development, the use of FAA standards and versions of FAA Order 8260.3 and 8260.19 or references applicable to the development and maintenance of IFPs and the NFPO mission requirements, Program Manager/Alternate Program Manager: Familiar with current versions of FAA Order 8260.3 and 8260.19. TERPs and management experience. The Project Manager and Alternate Project Manager require a 4-year college degree, or a minimum of 8-years on-the-job experience managing similar services/contracts of scope and size or type requirements.

5.2 Reporting is required for all services delivered for tasked ordered. The contractor shall provide a monthly report summarizing the completed IFPs to document the number of units completed, complexity level, the airport location, ICAO identifier, name of procedure, and amendment number, date of completion, estimated chart date and date of acceptance. The report shall include a summary of quality errors, problems, agreed upon resolution, and/or schedule changes in priorities ordered.

5.3 The contract services shall amend, develop or cancel assigned civil or military procedures in accordance with prescribed criteria and per the level of standards established by the National Flight Procedure Office (NFPO) in Attachment 1. Amended and Original procedures will include instrument approach and departure procedures, airways, standard terminal arrivals (STAR's) and minimum altitude charts used by air traffic control.

The contract services require quality IFP development and maintenance. The FAA NFPO will identify the IFPs requirements for development and or amendment each week.

a) The requirements will be tasked by the CO or COTR for a specific procedure, or group of procedures to be completed by a specific need date based on the production cycle.
b) Tasks shall be assigned weekly using electronic delivery via the Automated Procedures Tracking System (APTS).
c) Tasks shall be defined by one of the three unit designators, Basic, Moderate or Complex.
d) Task unit designator changes are subject to negotiation based on unforeseen circumstances and should be entered in Remarks in APTS.
e) Task due dates are determined by the estimated Chart Date for the task.
f) Initial task completion will warrant moving the task from the Contractor to FAA using APTS.
g) Subsequent movement of the task will be tracked using APTS
h) Tasks deemed complete by the FAA shall be identified to the Contractor as soon as possible.

5.4 The Contract Project Manager shall respond to the task request by providing the production schedule and completion/delivery date. The completion dates will be mutually agreed upon in writing prior to authorizing performance. The Project Manager shall ensure completed IFPs are processed through NFPO Division Quality Assurance. The APTS shall be utilized to transmit the IFPs through quality control and a hard copy shall be provided to the COTR as they are completed.

The Contractor shall submit a monthly report which shall include:

- The tasks completed/accepted and the units attributed to each task in accordance with the Task Order or Task Order revision.
- The monthly report shall document any pending IFPs ordered by task and action taken for resolution.
- A listing of any changes to the unit designator, between assignment and completion, shall be provided.
- A summary of Task Order revisions and completion dates.
- The FAA may request a specific procedure, or group of procedures, be given a higher priority than the routine procedures that are also being accomplished after the task is ordered. In these instances, the Contractor Project Manager will advise the FAA of projects that cannot be completed as requested. The COTR shall be notified in writing, and alternate dates will be agreed upon between the FAA and contractor. Changes to Task Order designators not agreed upon between the Program Manager and the FAA COTR/ Task Manager shall be forwarded to the Contracting Officer for final resolution.

5.5 Travel may be required when requested and authorized in advance by the CO or COTR. The CO or designated COTR may request support for FAA NFPO program reviews or other planning meetings that are conducted outside of the Oklahoma City metropolitan area. The travel request shall be in writing and shall be authorized and funded by the CO prior to incurring cost. Travel and related expenses shall be billed and reimbursed in accordance with the Federal Travel Regulations and provisions of the contract.

5.6 Quality Control shall be implemented for all services performed. The contractor will incorporate production strategies to maximize efficiencies in IFP development, maintenance, quality control and delivery. IFP development and amendments shall meet requirements of FAA US TERPS standards and Criteria. The Quality Control shall include the following:

(a.) The contractor shall use the Procedure Tracking System (PTS) to receive, send and track the progress/completion of tasks and projects assigned to specialists. The contractor will use the guidelines specified for levels of difficulty (see attachment #3) and annotate this on the PTS cover sheet when forwarded to Division Quality Assurance.

(b.) The contractor shall accomplish coordination with the appropriate Flight Procedures Office (FPO), the affected branch lead and/or FAA specialist to validate complete and accurate background information.

(c.) The contractor may be required to coordinate with the National Flight Data Center (NFDC), airport or military representatives and flight inspection offices.

(d.) The contractor will use the same Obstacle Evaluation products as FAA Aeronautical Information Specialists to determine the accuracy and proximity of obstructions to charted routes and within obstacle identification areas.

(e.) The contractor will use IAPA, or its replacement system to construct procedures. If a procedure cannot be built using IAPA, or its replacement system, manual development will be used to construct the procedure.

(f.) The contractor shall ensure all procedure development conforms to guidance specified in the latest edition of FAA Order 8260.3 and other supplementary orders in Section 8 of this PWS.

(g.) The contractor will document all procedures on the appropriate FAA 8260 or 7100 Series forms. All procedure submissions will include the PTS cover sheet, FAA 8260 or 7100 Series form(s), maps with obstacle data identified, an airspace form (when needed) and any supporting data (ESV, Waiver, NOTAM, AVNIS printouts, etc.) that are required to explain or implement changes or actions. (See Attachment 1)

(h.) All instrument flight procedures shall be submitted via PTS using IFP automated systems.

(i.) The contractor may conduct on-the-job training as necessary, to familiarize personnel with changes to criteria or operating procedures. When the government modifies the GFP identified herein (Section 2), the government shall provide a minimum 90-day notice to the Contract Project Manager who will coordinate a training schedule for personnel assigned to tasks ordered herein. This training will include implementation of any new computer operating system.

## 6.0 FAA ACCEPTANCE

Upon completion, the contractor will conduct a review of completed IFPs for accuracy prior to forwarding the procedure to NFPO Division Quality Assurance. The FAA will accomplish the first review within 15 days from receipt of the IFP delivery. If errors are found during the Quality Assurance Review, an error rating code will be assigned IAW attachment 2. If, after the review, changes or corrections are required, it will be returned to the Project Manager for rework. The IFP must be returned to Division Quality Assurance within four workdays. The FAA will complete the second review within 5 days from receipt of reworked IFP. If subsequent Quality Assurance Review finds changes or corrections are necessary, the contractor must correct and return the procedure to Quality Assurance within two workdays. Continual or excessive errors will be addressed and resolved by the COTR in regularly scheduled interchange meetings.

(a.) NFPO Division Quality Assurance will stamp instrument flight procedures that are complete and forward them to flight inspection. The appropriate branch manager will verify minimum altitude chart reviews complete. This constitutes acceptance of the TERPS procedure.

(b.) If an instrument flight procedure is subsequently found to be unacceptable due to the flight inspection evaluation, the affected branch will take action to reassign the work or cancel the procedure. The contractor will receive credit for completing the procedure based on the acceptance in paragraph 6.0.a of this document.

## 7.0 DEFINITION OF TERMS

APTS – Automated Procedure Tracking System
AVN – Aviation System Standards
AVNIS – AVN Information System
CO – Contracting Officer
COR – Contracting Officers Representative
COTR – Contracting Officers Technical Representative
DP – Departure Procedure
EOVM – Emergency Obstruction Video Map
ESV – Expanded Service Volume
ESVMS – Expanded Service Volume Management System
FAA – Federal Aviation Administration
FAAO – FAA Order
IAP – Instrument Approach Procedure
IAPA – Instrument Approach Procedures Automation
IFP – Instrument Flight Procedure
IPDS – Instrument Procedures Development System
MIA – Minimum IFR Altitude Chart
MMAC – Mike Monroney Aeronautical Center
MVAC – Minimum Vectoring Altitude Chart
NAS – National Airspace System
NFDD – National Flight Data Digest
NFPO – National Flight Procedures Office (AVN-100)
NOTAM – Notice to Airman
QC – Quality Control
RNAV – Area Navigation
RNAV (GPS) – RNAV (Global Positioning System)
RNP – Required Navigation Performance
SIAP – Standard Instrument Approach Procedure
SOW – Statement of Work
TBD – To Be Determined

## 8.0 REGULATIONS AND MANUALS

The following is a list of orders/regulations and documents that each contract TERPS Specialist will have access to:

FAA Order 8260.3 – US Standard for TERPS
FAA Order 8260.15D – US Army TERPS Service
FAA Order 8260.19 – Flight Procedures and Airspace
FAA Order 8260.32 – US Air Force TERPS Service
FAA Order 8260.38 – Civil Utilization of GPS
FAA Order 8260.45 – Terminal Arrival Area (TAA) Design Criteria
FAA Order 8260.46 – Departure Procedure (DP) Program
FAA Order 8260.50 – US Standard for WAAS
FAA Order 8260.53 – Standard Instrument Departures That Use Radar Vectors to join RNAV Routes
TERPS Instruction Letters (TILs)
Criteria by Letter/Memorandum
TERPS Information and Interpretations
Guidance issued by E-Mail
Helicopter Data
N8260.58 – Application of the Glidepath Qualification Surface (GQS) for Vertically Guided Approach Procedures
N8260.61 – Precision Approach Obstacle Assessment and Category II/III Requirements

## PROCEDURE DEVELOPMENT REQUIREMENTS

1. This attachment provides the list of contents required for processing an instrument approach or departure procedure. This is in addition to the guidance specified in VN 8200.6A.

2. Requirement:

2.1. All procedures will be initiated in the Automated Procedures Tracking System (APTS) and include the following data as a minimum;

2.1.1. A PTS cover sheet annotated with the estimated chart date.

2.1.2. A list of all –2's to include their Revision number and if they are INFO ONLY.

2.1.3. A list of all FAA 8260/7100 series forms used in the development of the procedure

2.1.4. A listing of any ESV's or waivers; new or revised.

2.1.5. Additional data that will be useful to Flight Inspection in the evaluation of the procedure.

3.1. When forwarding the package to Division Quality Assurance (AVN-101) for evaluation, include the following:

3.1.1. All 8260/7100 series forms listed on the PTS cover sheet.

3.1.2. Color copies of topographical maps used to depict all segments developed.

3.1.3. A copy of the current procedure (if published).

3.1.4. Airspace letter for all new procedures or those where changes have modified dimensions of the final segment.

3.1.5. Any 8260-1-waiver document that needs to be modified or is an original.

## PROCEDURE DEVELOPMENT STANDARDS

1. This attachment provides a description of the evaluation tools used to track the quality of work provided. In accordance with the ISO 9000 standards, these error-tracking remarks will be applied to all contractor-produced procedures.

    1.1. Error Code 1 is attributed to any Criteria Safety Error. This category of error puts the aircraft at an unsafe altitude to conduct the developed or amended instrument flight procedure.

    1.2. Error Code 2 is assigned to procedures with a Criteria Non-Safety Error. This category of error indicates non-adherence to established criteria, but it does not result in the aircraft being placed in an unsafe situation.

    1.3. Error Code 3 is issued whenever a Data Error is identified. A data error is generally found when the database information available to the specialist is not copied correctly into the procedure development.

    1.4. Error Code 4 is known as a Documentation Error. This type of error is somewhat common and is normally the result of incorrect notes on the procedure.

    1.5. Error Code 5 is reserved for typographical errors. Transposing numbers, spelling errors or using the wrong city or airport on the procedure could cause these errors to be identified.

    1.6. Error Code 6 is used whenever the submitted procedure is incomplete. This will result in the procedure package being sent back to the specialist. All information in Attachment 1 must be included to prevent this error code.

    1.7. Error Code 7 indicates No Errors. This is the ultimate goal for all developed or amended approach and departure procedures. This error code also indicates all corrections have been made when it is used in subsequent evaluations.

2. Error Codes 1 and 2 require explanations for their cause.

## IFP LEVEL OF COMPLEXITY

1. The FAA has historically developed and maintained a variety of IFPs with skilled Aeronautical Information Specialist (AIS). Aeronautical Information Specialist (AIS) generally have experience in an aviation career field such as air traffic, or pilot/aviators, and understand the purpose of Instrument Landing procedures. This type aviation experience provides familiarity with aviation terminology, aircraft performance characteristics, navigational equipment, and airport runways. They also understand mathematical calculations dealing with slopes, angles, and right triangles, and posses Microsoft Power Point, Word, and Excel skills that assist in producing the IFPs. The AIS typically complete a basic procedure in 48 hours. A basic procedure is defined as a single (1) unit of work. As a result the various complexity levels are defined by a unit concept. That is:

- Basic procedure = one (1) unit of work,
- Moderate procedure = two (2) times one unit of work
- Complex procedure = three (3) times one unit of work

The following is a description of the difficulty of work to be performed:

1.1. Development of Original Basic, Moderate and Complex instrument Approach procedures and Minimum Altitude Charts:

1.1.1. Basic original instrument approach procedures include (Civil or Military) LNAV Only without TAA, VOR FAF, DF, LOC, NDB, LDA procedures, review of original MVAC's, EOVM's or MIA's in non-mountainous areas.

1.1.2. Moderate original instrument approach procedures include (Civil or Military) LNAV Only with TAA or LNAV with either LNAV/VNAV or LPV minima, VOR No-FAF, ILS, LDA with GS, LOC/DME, Copter (RNAV or Non-RNAV), TACAN or VOR/DME procedures, non-RNAV STAR's and review of original MVAC's, EOVM's or MIA's in mountainous areas.

1.1.3. Complex original instrument approach procedures include (Civil or Military) RNAV procedures with LNAV/VNAV and LPV minimums, an ILS with CAT II and/or CAT III minima, PRM procedures, any HI-ILS, HI-TACAN, HI-VOR/DME or HI-VOR procedure, RNP approach procedures or any original RNAV STAR.

1.2. Development of Original Basic, Moderate and Complex instrument Departure procedures:

1.2.1. Basic original instrument departure procedures include (Civil or Military) Takeoff Minima with standard departure minimums or Takeoff Minima with a textual departure (no VCOA) procedure.

1.2.2. Moderate original instrument departure procedures include (Civil or Military) Takeoff Minima with VCOA development required, any graphic (non-RNAV) departure procedure.

1.2.3. Complex original instrument departure procedures include the development of any graphic (Civil or Military) RNAV (GPS or RNP) departure or any (non-RNAV) graphic departure procedure that serves two or more airports from a single procedure.

1.3. Amendment of Basic, Moderate and Complex instrument Approach procedures and Minimum Altitude Charts:

1.3.1. Basic amended instrument approach procedures include (Civil or Military) NDB, VOR, LNAV only, TACAN and VOR/DME procedures,

non-RNAV STAR's and reviews of amended MVAC's, EOVM's and MIA's.

1.3.2. Moderate amended instrument approach procedures include (Civil or Military) RNAV approaches with LNAV/VNAV and/or LPV minima, ILS or LDA with GS approaches, Copter approaches, RNAV STAR's and high-altitude procedures.

1.3.3. Complex amended instrument approach procedures include (Civil or Military) ILS approaches that require the addition of CAT II and/or CAT III minima, ILS approaches that require the removal of LOM or NDB as the FAF, PRM procedures that require modification or RNAV procedures that are converted to an LPV with a 200 HAT.

1.4. Amendment of Basic, Moderate and Complex instrument Departure procedures:

1.4.1. Basic amended instrument departure procedures include (Civil or Military) procedures that require updated takeoff minima or departure changes, but no modification or addition of the VCOA. Departure procedure amendments that result in the removal (deletion) of a VCOA are Basic.

1.4.2. Moderate amended instrument departure procedures include (Civil or Military) departure amendments that require the addition or modification of a VCOA or any RNAV departure modification.

1.4.3. Complex amended instrument departure procedures include any (Civil or Military) departure amendments that require the addition of two or more new transitions.

1.5 Airway Amendments are considered Basic

1.6 Cancellations: Any procedure that is cancelled concurrent with the development or amendment of a procedure described above is part of the assigned task and does not garner additional credit.

1.7. The contractor will use the guidelines specified for levels of difficulty and annotate this on the PTS cover sheet when forwarded to Division Quality Assurance.

1.8. The level of difficulty for procedures can change from the initial procedure evaluation up until the procedure completion. A Complex procedure may become a Moderate or even Basic procedure due to the presence of obstacles that prohibit the Complex procedure from being built. The product submitted by the contractor to Division Quality Assurance will determine the appropriate – Basic, Moderate, Complex – level of difficulty.

1.9. In those cases where the contract representative cannot determine the level of difficulty, the COTR should be notified prior to the procedure being sent to Division Quality Assurance so the issue can be resolved.

1.10. The COTR will notify the contractor when there is a difference in the level of difficulty between the contractor's assessment and the Division Quality Assurance assessment.

1.11. If the COTR and the contractor representative cannot reach agreement on the level of difficulty, the CO will resolve the issue.